

REMARKS

In the final Office Action, the Examiner withdrew the objections to claims 52, 54 - 62, 65, 66 and 68, withdrew the rejection of claims 87 and 89 under section 101, withdrew the rejection of claims 87 and 89 under the first paragraph of section 112, and withdrew the rejection of claim 64 under the second paragraph of section 112. The Examiner rejected claims 39 - 46, 51, 53 - 56, 58 - 61, 70, 72, 75 - 77 and 79 - 83 and 85 - 92 as obvious over Clouthier in view of Spaulding, rejected claims 47, 48 and 50 as obvious over Clouthier and Spaulding in view of Hiratsuka, rejected claim 49 as obvious over Clouthier, Spaulding, Hiratsuka and Wong, rejected claims 52, 57, 62, 71, 78 and 84 as obvious over Clouthier, Spaulding and Venkateswar, rejected claims 63, 65, and 69 as obvious over Clouthier, Spaulding and Endoh, rejects claims 64 and 66 as obvious over Clouthier, Spaulding, Endoh and Brindle, rejected claims 67 and 68 as obvious over Clouthier, Spaulding, and Zuefle, and rejected claims 73 and 74 as obvious over Clouthier, Spaulding, Venkatewar and Applicant's admitted prior art.

35 USC §103(a)

The Clouthier patent 5,949,964 discloses a method for printing halftone images, including classifying the image type of image structures, assigning a halftone type identifier to each data segment, transferring the halftone type identifier with the associated data, building page data, removing the halftone from the page building operation, and creating a halftone plane that includes a spatial array of halftone type values. When the page is complete, it is compressed and stored. When desired for use, the page is decompressed and the decompressed page retains the halftone identifier. A halftone module performs different halftone operations depending on the type of halftone identifier that is provided with the data. The halftone module performs text halftone operations for a text image portion of the page, graphics halftone operations for a graphics image portion of the page, raster halftone operations for a raster image portion of the page, no halftone operation for a printer ready image portion of the page. A matrix of threshold values that is tiled across the image. The image is subjected to a dither procedure.

Applicant respectfully disagrees with the Examiner's position that Clouthier discloses identifying a gray scale value for each tile that contains only dither cells.

Thus, Clouthier discloses transmitting the image raster data for printing, along with the designation of image type. The image raster data in the transmitted file causes the transmitted file to be large. Clouthier also provides that the file is compressed prior to transmission and uncompressed after transmission. Compression and uncompression of the large file uses resources and time.

The present invention provides an advantage over Clouthier in that the image raster data need not be transmitted. Instead, gray scale regions are identified by their model dither cell and gray scale value and location information, for example, and this characterizing data is transmitted instead of the image raster information. The quantity of data is reduced considerably. Further, any compression is faster and uses less resources.

The Spaulding reference does not add the missing information to Clouthier in a way to obviate the present invention. Detailed comments on the Spaulding reference are presented in the prior response.

Even when considering a combination of Clouthier U.S. Patent No. 5,949,964 and Spaulding U.S. Patent No. 5,822,451, the references do not obviate the subject matter of the claims. The further references likewise do not provide disclosure or suggestions of the features provided by the present invention and presented in the claims.

Accordingly, Applicant respectfully submits that the claims as presented herein are non-obvious over the combined teachings of the cited prior art and withdrawal of the obviousness rejection is hereby requested.

Conclusion

Applicants respectfully request favorable reconsideration and allowance of the present application in view of the foregoing.

Respectfully submitted,



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